

What is Claimed is:

1. VTOL micro-aircraft comprising:

- a first ducted rotor and a second ducted rotor mutually aligned and distanced according to a common axis and each including a propeller rotatable within a respective annular cowling,
- a fuselage positioned along said common axis between said first and second rotor and bearing said propellers at its ends,
- 10 - first and second motorised means positioned at said ends of the fuselage to drive the propellers of said first and second rotor in mutually opposite directions of rotation,
- a wing system positioned radially between said fuselage and said first and second rotor, and
- 15 - control means.

2. Micro-aircraft as claimed in claim 1, wherein said wing system includes wing profiles forming a substantially X shaped configuration.

20 3. Micro-aircraft as claimed in claim 2, further comprising an additional wing profile (14) positioned within said X configuration.

4. Micro-aircraft as claimed in claim 2 and claim 3, wherein said wing profiles are hollow.

25 5. Micro-aircraft as claimed in any of the claim 4, wherein said wing profiles interconnect said fuselage and said annular cowlings of said first and second rotor.

30 6. Micro-aircraft as claimed in claim 1, wherein said fuselage is designed to house means for powering said motorised means and a system for managing said motorised means and said control means with an inertial navigation system associated thereto.

35 7. Micro-aircraft as claimed in claim 2 and claim 3, wherein said control means include directional flaps

applied to said wing profiles in proximity to said first ducted rotor and/or in proximity to said second ducted rotor.

8. Micro-aircraft as claimed in claim 7, wherein
5 said control means are also associated to said cowling of said second ducted rotor.

9. Micro-aircraft as claimed in claim 1, wherein said propellers have different profiles.

10. Micro-aircraft as claimed in claim 1, wherein
10 said motorised means include for each ducted rotor at least an electric motor.

11. Micro-aircraft as claimed in claim 1, wherein said motorised means include for each ducted rotor at least a micro-combustor motor.

15 12. Micro-aircraft as claimed in claim 1, having surfaces coated with organic film solar cells.

13. Micro-aircraft as claimed in claim 1, having surfaces made with silica wafer.

20 14. Micro-aircraft as claimed in claim 1, wherein said wing system includes wing profile forming a substantially H shaped configuration.